

had it at a time most singularly adapted to account for the outbreak in London.

The description of the farm-yard itself has been given elsewhere; suffice it to say that the well really drained the premises, and there is little doubt but that the poison got into the water, which was so bad that it had long been condemned as unfit to drink.

Hitherto epidemics of typhoid spread by means of milk have been attributed to the admixture of water as an adulteration with it; in this case no such suspicion arises, the milk was exceptionally rich, and was daily tested with sufficient accuracy to show adulteration with any but a small amount of water; but the water from the well was conveyed to the dairy pump by a pipe, and was used for washing the dairy utensils, so that it is easy to account for the presence of a small amount in some of the "churns," an amount, however, enough in so favourable a pabulum as milk to infect a very large quantity of it.

The lesson to be drawn is that all dairy-farms must be subject to regular sanitary supervision, especially as to their water supply, that such details of arrangement with regard to the cleansing of the vessels as may seem to offer least chance of the possibility of mischief should be adopted, and that the presence of infectious disease among the *employés* should be noted at once, and the proper precautions, which are now well known, taken.

W. H. CORFIELD

DOLMEN-MOUNDS v. FREE-STANDING AND TRIPOD CROMLECHS

MR. W. COPELAND BORLASE, the talented author of "*Nænia Cornubiæ*," in his communication to NATURE (vol. viii. p. 202), calls attention to the structure of Lanyon Quoit as an undeniable example of a British tripod cromlech or free-standing dolmen, by way of "protest against the *dictum* of Mr. Lukis being extended to our British examples, before a careful scrutiny has been made of every monument of the kind, from one corner of our isles to the other."

To my friend Mr. Borlase I owe my personal acquaintance with the numerous non-historic rude stone monuments in the Land's End district; and, as he is a life-long resident in the immediate vicinity of these interesting relics, to which I am a mere casual visitor, it is with feelings of great delicacy and diffidence that I now venture to place in a somewhat different aspect the statements and conclusions which he would wish your readers to adopt.

It were strange if Mr. Borlase did not turn out the best authority on early Cornish remains, for within six or seven miles of his residence at Castle Horneck (itself the site of an ancient Cornu-British encampment) there are at least twice as many dolmens as in all the rest of England; and though there may be perhaps as many in Anglesea, and twice as many in Wales, still West Cornwall has an advantage over both these districts, viz., that in Wales and Anglesea, the country of the Silures, there are no circles but only dolmens; in Cornwall, as in the Isle of Man, there are both circles and dolmens, the result, as Fergusson tells us, of an Ibero-Aquitania admixture with Celtic and other (Scandinavian?) blood in the inhabitants. (*Vide* "*Rude Stone Monuments*," p. 163.)

Inheriting the tastes and following in the footsteps of his great-grandfather of antiquarian renown, Mr. Borlase has made great use of his opportunities, and is continually adding to, or accumulating store of facts with regard to the ancient history of our country. On the other hand, most antiquarians will probably agree with me in

maintaining that the Lukis family may be reckoned some of the best, if not the very best authorities, on the chambered barrows of France and the Channel Islands. Enormous numbers of these structures have been scientifically examined and exhaustively described by the Messrs. Lukis: and the Rev. W. Lukis, in company with Sir Henry Dryden, is now employed in drawing to scale plans and elevations of the Isle of Man remains, and thereby carrying out his share of that scrutiny which Mr. Borlase anxiously demands in his letter.

When such authorities disagree, it would seem almost impertinent to interfere; but knowing my friend Mr. W. Lukis to be busily engaged in the Isle of Man, and too far off to personally examine the monument in dispute, whilst I was within a three hours' journey of the structure I determined to see the cromlech myself, and having done so, cannot allow Mr. Borlase's letter to remain unchallenged.

In taking up the cudgels for Mr. Fergusson, Mr. Borlase must not be looked upon as an implicit follower of that author, whose work he characterises as "*unreliable*,"* although, with him he is convinced "that the barrows and the cromlechs (if not the circles too) were the sepulchres of the dwellers in the hut circles and the earthworks; and that these latter were the residences of the Romanised Britons in the earlier centuries of the Christian era;" for before the appearance of "*Rude Stone Monuments*," he struck out for himself the formation of "a small class or species of dolmen," viz. the tripod cromlech, or dolmen proper (see "*Nænia Cornubiæ*," p. 14, *et seq.*), "where, as Col. Forbes Leslie remarks, the vertical supporters of the tabular stone are columnar, and cannot be said to enclose a space."

Before proceeding, it may be as well to remark what Mr. Borlase ignores, viz. that (as may be seen from the title to his paper) the criticism of Mr. Lukis (deserved, if severe) of "*Rude Stone Monuments*," was based upon the application of the "*Free-standing*" theory, by the author, to the monuments of France, where he *proved* it was inapplicable. He said nothing at Somerset House about English monuments, although I believe it is his intention to say something about them on a future occasion. Mr. Borlase severely attacks Mr. Lukis, as though, in removing the *French* monuments from the supposed "free-standing class, he condemned all persons who held their own views on *British* ones. Mr. Lukis' views are not "hypotheses." He simply declares that the plans of *French* monuments which he produced before the Society of Antiquaries in London teach the proposition he laid down, and that it is the duty of those who are unacquainted with these examples to verify or disprove his statements and descriptions by visiting and inspecting them, and not to try and write him down when they have a very imperfect knowledge of them, or none at all. Previous to taking stock of Mr. Borlase's weighty evidence in support of Lanyon Quoit as originally a dolmen proper, i.e. a tripod cromlech, it should be noted what Fergusson states in respect to the West of England dolmens. In "*Rude Stone Monuments*," p. 163, he says; "*Even a cursory examination of these West Coast dolmens would, I think, be sufficient to prove to any one that the theory that all were originally covered with earthen mounds is utterly untenable.*" Exactly so! A cursory examination (which, if we are to believe Mr. Borlase, it appears that Fergusson never took the trouble to make, at least as regards the Cornish circles)† is very likely to lead the uninitiated hasty observer to suppose as above. What a prolonged investigation will prove I leave the reader to find further on. It is, at all events, unfortunate for this theory that Mr. Borlase can only produce *two*‡

* See Mr. Borlase's letter to the *Antiquary*, July 27, 1872.

† Letter to the *Antiquary*, July 27, 1872.

‡ Mr. Borlase mentions a possible third example, in his "*Nænia*," p. 26. A fallen cromlech, which may have possibly belonged to the "tripod class," is to be found near Helmen Tor, in the parish of Lanlivery.

examples of the tripod class in all Cornwall, viz. those of Lanyon and Caerwynen, and those are both *modern restorations of dilapidated ruins*: not a single stone of either of these examples is as it originally stood "*in situ*," I did not see Mr. Borlase's letter to NATURE until the 3rd inst. On the 5th I obtained old Dr. Borlase's quaint volume on the "Antiquities Historical and Monumental of the County of Cornwall" (2nd ed. 1769), from a chapter in which volume Mr. Fergusson borrows his title of "Rude Stone Monuments," and on the following day visited Lanyon Quoit itself, sketched it, and compared the accounts of it on the very spot, and the following is the result of my investigation. I will take Mr. Borlase's statements categorically:—

(1) Lanyon Quoit "always *was*, as it is now, a free-standing dolmen."

(1) I humbly submit that Lanyon Quoit could not possibly have been always as it is now, from the fact of its having fallen, during a violent storm in 1815, whilst a comparison of its plan, as it now is in its restored state, and as it is given by Dr. Borlase, shows that the stones have been moved. The supporters were originally parallel, and are now at different angles to one another.

(2) "A tripod dolmen consisting of three slim pillars supporting on their summits a horizontal stone."

(2) I leave it to my readers to judge from the accompanying representation (from a photograph) of the cromlech whether, from the flat nature of the component stones, the supporters have not more or less the character of slabs rather than that columnar shape necessary for the so-called "Table stone proper:" and whether the *three slim pillars* would not have been more accurately described as *stout stone slabs*. The good Rector of Ludgvan, more than a hundred years ago, more aptly described these Cornish monuments.* "Three or four large flags or thin stones capped with a much larger one, which go by the British name of cromlêhs;" and again, "In several parts of Cornwall we find a large flat stone in a horizontal position (or near it) supported by other flat stones fixed on their edges and fastened in the ground." He never mentions pillars or columnar supports.

Mr. Borlase omits to mention the *fourth* slab (D) which is prostrate to the north (see plate), and the *fifth* and *sixth* flat stones (E and F) (possibly one broken in two) which lie imbedded in the soil at the foot of the south supporter, in which position they were apparently placed by the restorers in 1824 to prop up the upright slab. †

(3) Two drawings of it in its pristine condition by Canon Rogers, 1797, and Dr. Borlase, 1747, "agree in representing the slimness of the pillars, their distance apart, and great height of monument, features which render it not unlike a gigantic three-legged milking-stool."

Dr. Borlase's drawing shows *four* upright slabs, although the fourth does not apparently touch the cap-stone. I think that the supporters A, B, C, may be identified with those in Dr. Borlase's drawing with tolerable certainty, and D, now prostrate, was the fourth upright: that E and F were once also upright is highly probable.

(4) Then, as now, there was no mound about it. It stood on a low bank of earth and the area had been often disturbed by treasure-seekers."

(4) Dr. Borlase says "this cromlêh stands on a low bank of earth not two feet higher than the adjacent soil, about 20 feet wide and 70 feet long." The cromlech stands as much in as on the long mound which, according to the above measurements, would contain at least 2,000 cubic feet of earth, besides the *many rough stones* "not the natural furniture of the place," which Dr. Borlase also mentions. It bears every appearance of having formed the base of a long barrow.

(5) "No houses are near it which could have received the stones of a denuded mound."

(5) A good road with rough stone walls on each side of it, which runs within a few yards of the cromlech, would well account for a portion of a denuded mound or cairn whose stones would be well adapted for building the walls and metalling the road.

(6) "It is difficult to see how a kist-vaen or septum of any kind could have been formed beneath the cap-stone. Had a wall of *small* stones been built from pillar to pillar the height of the superincumbent mound must have forced them inwards, a catastrophe which the "dolmen-builders" were always careful to avoid."

(6) Mr. Borlase must have had experience in his researches among the underground bee-hive caves to know how extensively microlithic dry masonry can be so built up as to resist any outside pressure of a superincumbent mound.

(7) "Had *large* stones placed on edge formed the walls of the kist, how is it they are *all* removed, while every other cromlech in the district retains them?"

(7) In "Nænia Cornubiæ," p. 43, Mr. Borlase writes, with regard to Lower Lanyon Cromlech, "Two stones are all that now remain, viz. the covering stone and one of the supporters; the others having been split up and carried away for building."

(8) "My strongest proof is yet to come. The interment was *not in the kist at all*. A grave had received the body six feet under the natural surface of the surrounding soil, and within the area described by the structure. This being the case, of what use could an enclosed kist have been, or why should the cenotaph be covered in at all?"

(8) Dr. Borlase discovered a pit within the area of the kist-vaen of Mulfra Quoit; and Mr. Borlase himself relates in his Nænia "a small pit seems to have been sunk in the centre" of Chywoone cromlech which he acknowledges was buried in a tumulus. This method of interment would therefore seem common to these three structures.

(9) "On the southern side of the structure, and so near it that a mound over the monument must have inevitably covered it up, stands a little circular ring cairn of the ordinary type, in the centre of which I found the remains of an inner ring which, though now rifled, had doubtless contained an interment."

(9) Dr. Borlase mentions with regard to the long low bank above-mentioned "at the south end, has (*sic*) many rough stones, some pitched on end, in no order; yet not the natural furniture of the surface, but designedly put there; though by the remains, it is difficult to say what their original position was."

Should Mr. Borlase's recognition of the confused aggregation of stones as a ring cairn be correct, it is by no means inconsistent with the theory that a mound once enveloped the cromlech and (as Mr. Borlase suggests would be the case) included the ring cairn in its area.

A parallel case occurs at Moustoir Carnac in Brittany, a plan and section of which, after M. Galles, is given in Fergusson's work, p. 358, and which I have personally examined. Here we find a true dolmen, *two* ring cairns, and a kist within one large long tumulus or barrow.

From my own inspection, I agree with the older Borlase, that "nothing is to be absolutely concluded, there having happened so many disturbances," but I have little doubts that whatever it was it formed some part of a structure in connection with and belonging to the cromlech.

Whilst comparing Cornish cromlechs with French dolmens, a comparison should be made between Chywoone cromlech* and Mr. Fergusson's characteristic example at Grandmont† in Bas-Languedoc (woodcut No. 128), with regard to which he says, "The umbrella form is hardly

* Antiquities, pp. 159 and 223.

† The younger Borlase acknowledges that "several of the stones had been broken," "Nænia," p. 18.

* Nænia Cornubiæ, p. 55.

† "Rude Stone Monuments," pp. 343, 344. Figured in NATURE, vol. v. p. 357.

such as would ever be used for a chamber in a tumulus, but as a pent-roof is singularly suitable for an open-air monument."

The Chywoone cromlech has a peculiar convex-shaped cap-stone or pent-roof; so much so, that "the Quoit itself, seen from a distance, looks much like a mushroom." Mr. Borlase calls it the most perfect and compact cromlech in Cornwall. On exploration, "it was first of all dis-

covered that the building rested on the solid ground, and not on the surrounding tumulus in which it had been subsequently buried." . . . "The barrow or cairn, which in some places nearly reaches the top of the side stones on the exterior, is thirty-two feet in diameter, and was hedged round by a ring of upright stones." . . . "It was discovered that the interstices between the side stones had been carefully protected by smaller ones placed

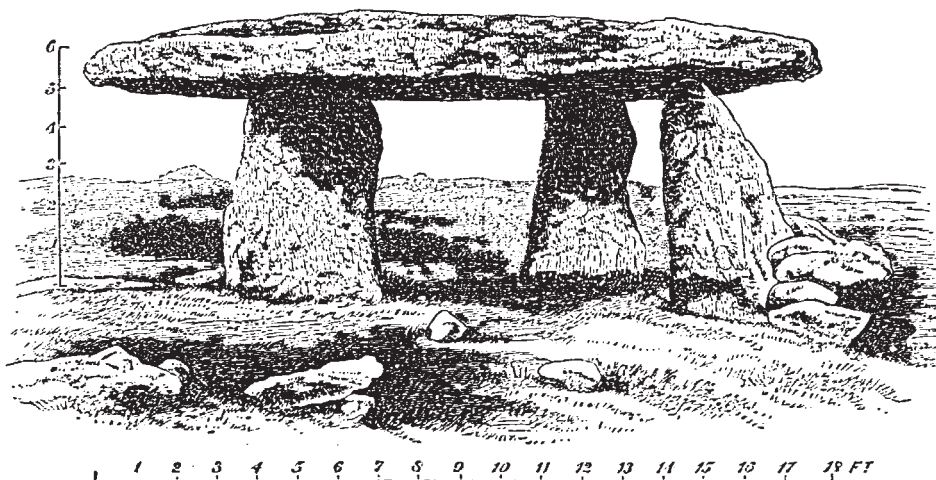


FIG. 1.—Restoration of sole remaining chamber of Lanyon Cromlech, showing fallen side slabs. View from the east.

in such a manner as to make it impossible for any of the rubbish of the mound to find its way into the kist."

Mr. Borlase remarks that "the *noscitur a socio* is a principle too lightly regarded by those on whom it forces a conclusion they do not like. In the case of antiquities it is, if judiciously used, extremely valuable." Applying this principle to the two Lanyon cromlechs, is it not just possible that some former owner of the upper cromlech

has done what the late owner of the lower one did, viz.,* "remarking that the earth was rich, he thought it might be useful for a compost. Accordingly he sent his servants soon after to carry it off, when, having removed near a hundred cartloads, they observed the supporters of a cromlêh."

After the above it is hardly necessary to allude to the Caerwynen cromlech, which has been re-erected in a

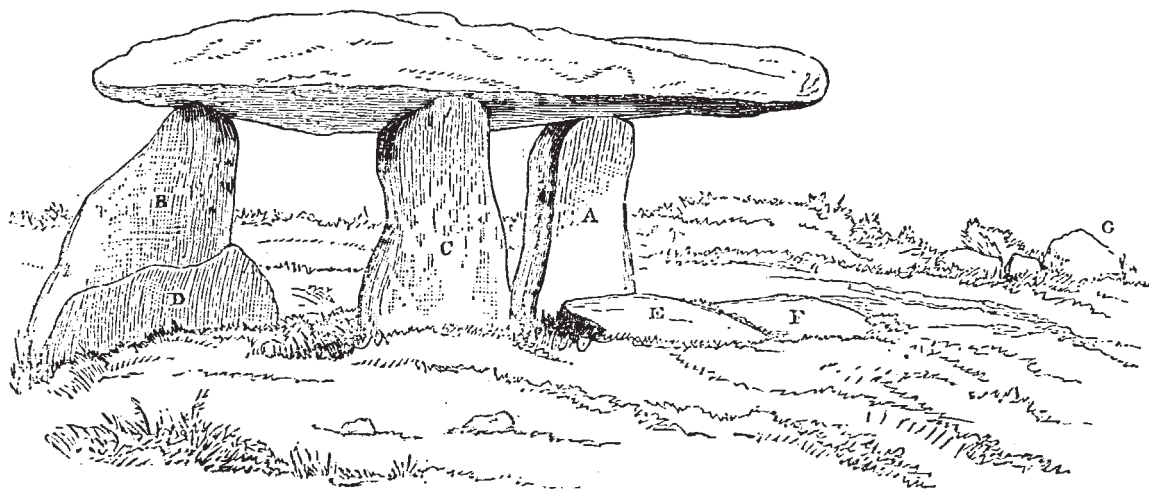


FIG. 2.—Sketch of Lanyon Quoit from the north-west.

gentleman's park, more as an ornamental monument than as an archaeological record. It is noticeable that in its immediate vicinity is a heap of stones overgrown with thicket, which evidently had some connection with the structure, which was composed of more than four stones.

In conclusion, it seems to me that the distinction be-

tween the dolmens proper and the kist-vaen cromlechs only adds to the difficulties surrounding the subject, and I fear that Mr. Borlase's letter will not tend to strengthen an already weak cause.

Pendennis Castle

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* "Nenia Cornubie," p. 43